

Correspondence

TO THE EDITOR, *British Journal of Venereal Diseases*

Penicillin concentrations in the cerebrospinal fluid after benzathine penicillin and probenecid in the treatment of syphilis

Sir,
Polnikorn *et al*¹ reported that only after 4 million IU aqueous penicillin or 500 000 IU aqueous penicillin intravenously with oral probenecid was an acceptable concentration of penicillin in the cerebrospinal fluid (CSF) attained in the treatment of neurosyphilis (0.03 IU/ml or 0.018 mg/ml). Dunlop *et al*² reported that with 2.4 million IU procaine penicillin intramuscularly and oral probenecid more than adequate concentrations of penicillin could be detected in the CSF.

We wish to report our observations on four male patients with syphilis who had been treated with benzathine penicillin 2.4 million IU intramuscularly weekly for three consecutive weeks (total dose 7.2 million IU) together with oral probenecid 500 mg six hourly for 21 days. Two patients had secondary syphilis, one with syphilitic aortitis with uveitis and the other latent syphilis. Penicillin concentrations were measured twice using a bioassay method with *Sarcina lutea* as test organism (table).

Our results indicated that benzathine penicillin 2.4 million IU weekly with daily oral probenecid resulted in undetectable concentrations of the drug in the CSF on the seventh day after injection. This regimen, therefore, does not seem to be appropriate for the treatment of neurosyphilis. The minimum course of outpatient treatment for neurosyphilis should be 2.4 million IU procaine penicillin intramuscularly daily with oral probenecid 500 mg

six hourly, as recommended by Dunlop *et al*.²

Yours faithfully,
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References

1. Polnikorn N, Witoonpanich R, Vorachit M, Vejajiva S, Vejajiva A. Penicillin concentrations in cerebrospinal fluid after different treatment regimens for syphilis. *Br J Vener Dis* 1980;56:363-7.
2. Dunlop EMC, Al-Egaily SS, Houang ET. Production of treponemical concentration of penicillin in cerebrospinal fluid. *Br Med J* 1981;283:646.

TABLE Penicillin concentrations in the blood and cerebrospinal fluid (CSF) of four male patients with syphilis

Case No	Age (years)	Stage of disease	Test results in:							Penicillin concentration seven days after first dose	
			Blood		CSF			Controls			
			VDRL (titre)	FTA-ABS	VDRL	FTA	FTA-ABS	Blood (IU/ml)	CSF (IU/ml)	Blood (IU/ml)	CSF (IU/ml)
1	19	Secondary	1/32	R	NR	R	NR	0	0	0.79	0
2	52	Latent	1/1	R	NR	NR	NR	0	0	0.365	0
3	20	Secondary	1/8	R	NR	R	NR	0	0	1.3	0
4	54	Cardiovascular	1/2	R	NR	R	NR	0	0	0.95	0

R = reactive; NR = non-reactive

Book Reviews

Genital infection by *Chlamydia trachomatis*: Current Topics in Infection (series 2). By J D Oriel and G L Ridgway, 1982. Edward Arnold, London. Pp 144. Price £13.50.

This monograph, the second in the series "Current Topics in Infection," is written by a physician and a microbiologist, both acknowledged experts in the field of chlamydial research.

After a clear and well-balanced review of the microbiology of the organism, there is a chapter devoted to the laboratory diagnosis

of *Chlamydia trachomatis* infection. The taking and handling of clinical specimens for culture is described and the use and limitations of serological methods in diagnosis discussed. Human infections due to *C trachomatis* are described in the next seven chapters. A particularly pleasing feature is the insertion at appropriate places of "Comments". These short paragraphs are designed to make the reader stop to consider the importance of what has been presented in the preceding pages. The last chapter, entitled "Discussion," draws to-

gether these comments in a critical appraisal of current knowledge about human chlamydial infections.

Overall, the book is well produced and is a pleasure to read. There are some areas of repetition of data but this is a minor criticism of an otherwise valuable monograph. I can wholeheartedly recommend this review to genitourinary physicians in training and to their consultant colleagues.

A McMillan